

Ordinance No. 4413
An Ordinance Amending
Comprehensive Plan Volume I
Chapters 3, 4, 5, 6, 7, 8 and the Glossary and
Volume III Statewide Planning Goal 5 Resource
Inventory Documents
(Ordinance No. 4187 as amended),
Related to CPA 2006-0012

WHEREAS, Metro conducted an inventory of fish and wildlife habitat pursuant to Statewide Planning Goal 5;

WHEREAS, Metro determined that Classes I and II riparian habitat and Class A upland wildlife habitat are regionally significant resources; and

WHEREAS, the City of Beaverton collaborated with local governments in the Tualatin River Basin to form the Tualatin Basin Partners for Natural Places; and

WHEREAS, the Tualatin Basin Partners for Natural Places, through an intergovernmental agreement with Metro, agreed to use the Metro Inventory and to conduct an Environmental, Social, Economic, and Energy consequences analysis and develop a program pursuant to Statewide Planning Goal 5 regulations; and

WHEREAS, the Tualatin Basin Partners for Natural Places developed a voluntary program that facilitates and encourages habitat friendly development practices and low impact development techniques; and

WHEREAS, on October 18, 2006, the Planning Commission unanimously recommended approval of the proposed CPA 2006-0012 application based upon the Staff Report dated September 11, 2006 for the October 11, 2006 Public Hearing, the Supplemental Staff Report dated October 6, 2006 and Staff Memoranda dated October 13, 2006 and October 18, 2006 that presented the final draft amendment, addressed approval criteria and made findings that demonstrated that adoption of the proposed ordinance would comply with applicable approval criteria; and

WHEREAS, the final order was prepared memorializing the Planning Commission's decision and no appeal therefrom has been taken; now, therefore,

THE CITY OF BEAVERTON ORDAINS AS FOLLOWS:

Section 1. Chapters 3, 4, 5, 6, 7, 8 and the Glossary of Volume I of the Comprehensive Plan (Ordinance No. 4187 as amended) are hereby amended as set forth in Exhibit A of this Ordinance attached hereto and incorporated herein by reference.

Section 2. The text of Volume III of the Comprehensive Plan (Ordinance No. 4187 as amended), relating to Statewide Planning Goal 5 Inventory Resources, is hereby amended as set forth in Exhibit B of this Ordinance attached hereto and incorporated herein by reference.

Section 3. A map of Habitat Benefit Areas in and near the City is hereby added to Volume III of the Comprehensive Plan (Ordinance No. 4187 as amended) as set forth in Exhibit C of this Ordinance attached hereto and incorporated herein by reference.

Section 4. All Comprehensive Plan provisions adopted prior to this Ordinance which are not expressly amended herein shall remain in full force and effect.

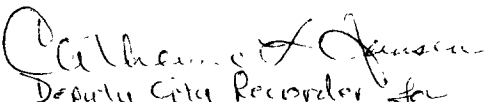
Section 5. Severability. It shall be considered that it is the legislative intent, in the adoption of this Ordinance, that if any part of the ordinance should be determined by any tribunal of competent jurisdiction, i.e., the Land Use Board of Appeals or the Land Conservation and Development Commission to be unconstitutional, contrary to other provision of law, or not acknowledged as in compliance with applicable statewide planning goals, the remaining parts of the ordinance shall remain in force and acknowledged unless: (1) the tribunal determines that the remaining parts are so essential and inseparably connected with and dependent upon the unconstitutional or unacknowledged part that it is apparent the remaining parts would not have been enacted without the unconstitutional or unacknowledged part; or (2) the remaining parts, standing alone, are incomplete and incapable of being executed in accordance with legislative intent.

First reading this 13th day of November, 2006.

Passed by the Council this 4th day of December, 2006.

Approved by the Mayor this 6th day of December, 2006.

ATTEST:


SUE NELSON, City Recorder

APPROVED:

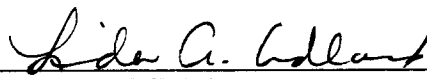
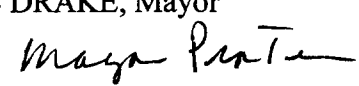

ROB DRAKE, Mayor


EXHIBIT A

CHAPTER THREE: LAND USE ELEMENT

3.4 COMMUNITY IDENTITY

Beaverton's eleven general City planning goals are found in the introduction to the Comprehensive Plan. Each Element of the Comprehensive Plan refines those goals, and creates new goals, within the context of state and regional mandates and the topic of that particular element.

The first general goal states "Retain Beaverton as an outstanding City." An outstanding City is a place of quality for people to live and work. Fundamental to the achievement of this goal is the appearance of the community. There is no doubt that the community will continue to grow and change as new people, businesses, and industries establish themselves in the area. A deliberate and continuous effort will be necessary to see that the multitude of decisions made in the process of growth collectively constitute progress toward an attractive, livable community.

3.4.1 Goal: Provide a policy framework for a community designed to establish a positive identity while enhancing livability.

Policies:

- a) The City, through its development review process, shall apply urban design standards to guide public and private investment toward creating a positive community identity.

Action 1: Adopt and apply land use regulations for landscaping, screening and buffering standards for interfaces between differing zones to reduce impacts of lighting and noises to retain a degree of privacy.

Action 2: Adopt and apply land use regulations respecting the natural and physical features of the landscape, including but not limited to, natural areas, site design for hillside areas, flood hazards, earthquake hazards and other environmental constraints.

Action 3: Adopt and apply land use regulations promoting development in ways that promote healthy watersheds and natural resources, use a natural system approach to development, and avoid impacting natural resources. A natural system approach includes sustainable stormwater management using habitat friendly development practices and low impact development techniques.

Action 4: Adopt and apply land use regulations allowing and encouraging techniques to reduce impacts to natural resources, known as Habitat Friendly Development Practices and Low Impact Development Techniques.

- b) The City's urban design standards shall promote creation of public spaces and a good pedestrian environment.
- c) Existing overhead utilities shall be placed underground in all parts of the community in conjunction with development.
- d) Sign regulations shall limit the size, location, and number of signs throughout the City. Non-conforming signs shall be removed at the time of a change in use. Off-site advertising signs shall be prohibited in all districts of the City.

***Action 1:** To ensure fairness, the City shall apply the sign amortization program to annexed properties that had their signs approved by Washington County.*

- e) The City shall preserve significant natural resources identified on the City's Statewide Planning Goal 5 Inventories, Volume III of this Plan, through application of regulations requiring the careful siting of development.

***Action 1:** Adopt maps showing habitat benefit areas. Habitat benefit areas, Clean Water Services' vegetated corridors and Beaverton identified Goal 5 Inventory areas frequently mutually support and are coincidental to one another.*

***Action 2:** Adopt and apply regulations that allow and encourage habitat friendly development practices that reduce impacts to habitat benefit areas, including preservation of the habitat benefit areas.*

***Action 4:** Develop a program to monitor reductions in density to allow for preservation and improvement of habitat benefit areas so that the reduction in density may be reported to Metro.*

***Action 5:** Promote habitat friendly development practices and low impact development techniques through the pre-application conference with development applicants.*

CHAPTER 4: HOUSING

4.2.1.1 Goal: *Maximize use of buildable residential land in the City.*

Policies:

- a) Increase residential capacity in the City to substantially comply with requirements of Title 1 of the Metro Urban Growth Management Functional Plan.

Action 1: Adopt and apply a Development Code provision to require that net residential development density occur at a minimum of 80% of the maximum density a zone allows for.

Action 2: Adopt and apply a new zoning designation allowing for a minimum lot size of 4,000 square feet per dwelling unit.

Action 3: Consider adopting and applying land use regulations allowing increased density, where low impact development techniques and habitat friendly development practices are applied.

Policies:

4.2.3.2 Goal: *Promote the production of new affordable housing units in the City.*

- a) Inform Beaverton's residents, property owners, and business owners of the need for additional affordable housing within the City.

Action 1: Formulate and implement a strategy for educating the City's residents, property owners, and business owners of the need for more affordable housing in Beaverton.

- b) Partner with and assist local non-profit developers in supplying and maintaining additional affordable units throughout the City.
- c) Continue to devote funding through the City's HOME Program to local non-profit housing development agencies in order to aid in the development and maintenance of new long-term affordable housing in the City.
- d) Work in partnership with TVHP to create housing that is affordable to households at or below 60% of the MFI.

Action 1: Explore the possibility of creating a land banking revolving fund.

Action 2: Investigate the possibility of establishing a property tax abatement program to promote the development of affordable housing.

Action 3: Explore the possibility of creating a discretionary fund that pays building permit and system development fees for projects that address affordable housing needs.

Action 4: Adopt and apply regulations allowing and encouraging low impact development techniques and habitat friendly development practices to facilitate integration of natural resources into affordable housing projects.

CHAPTER FIVE: PUBLIC FACILITIES AND SERVICES ELEMENT

5.4 STORM WATER AND DRAINAGE

The storm water collection and treatment system maintained by the City consists of inlets and pipe systems, regional detention facilities, streams and their adjacent riparian corridors, wetland areas, and habitat benefit areas. Many streams, habitat benefit areas, and wetland areas are located on private or park district property and are not actively maintained.

Pursuant to the current intergovernmental agreement (IGA) with CWS, ownership and maintenance of facilities operated by CWS are transferred permanently to the City for all areas annexed to the City. The current IGA with CWS establishes certain maintenance service levels that the City follows and may be amended from time to time as allowed by the IGA.

Urban storm water runoff is a major water quantity and quality issue affecting Beaverton area streams. As development continues, the magnitude of this problem can increase without proper mitigation.

Predevelopment or natural hydrologic function is the relationship among the overland and subsurface flow, infiltration, storage and evapotranspiration characteristics of the landscape. Sustainable stormwater management avoids and minimizes impacts to natural resources by protecting native vegetation and natural hydrologic function. A sustainable system mimics natural water flow by minimizing land disturbance and incorporating natural landscape features into a development.

The process of planning, design, construction, and maintenance of storm water run-off facilities is more difficult and expensive when an area is already developed. The management of storm water run-off is a problem that crosses jurisdictional boundaries. The City of Beaverton has worked with CWS to conduct storm water planning, implement storm water utility and system development charge funding methods, develop design standards for storm water facilities and execute agreements for storm water facility operation and maintenance. In addition, the City contracts with CWS for regional stream system water testing and federal/state permitting such as the National Pollution Discharge Elimination System (NPDES) Permit.

In 1990, CWS's jurisdiction was expanded from exclusively sanitary sewer service to include storm water. The State Legislature officially authorized formation of CWS's

Surface Water Management (SWM) program on July 23, 1990, to more effectively deal with the quantity (associated with flooding) and quality of urban surface (storm) water runoff. The Oregon Department of Environmental Quality and the U.S. Environmental Protection Agency had previously established strict regulations on water quality to control the pollutants that were being carried directly into streams and rivers. CWS in concert with other cities implemented the Surface Water Management utility to address the new regulations that affected the urbanized portion of Washington County (which includes all of Beaverton's assumed Urban Services Area). This was the first time that surface water runoff was administered regionally in Washington County. At the time that CWS formed the SWM program, the City of Beaverton and Washington County had long recognized and developed drainage systems to convey storm water and control flooding. Today, the City continues to own and operate the storm water conveyance system and non-regional detention basins within the City limits.

The CWS SWM program focuses on controlling pollution at the source thus reducing the sediments and pollutants that enter receiving streams and the Tualatin River. Preventative measures used include natural and artificial filtration systems, habitat friendly development practices and low impact development techniques, cleaning streets and catch basins, and building holding basins for quantity and quality detention. Rules for erosion at construction sites, floodplains and wetlands are enforced. These methods and many more are currently being used by CWS and cities to effectively control flooding and reduce pollutant loads carried by receiving streams and the Tualatin River.

The City of Beaverton has been involved in a number of studies over the last several years relating to storm water planning and development of storm water design standards. These studies include:

STORM WATER PLANNING

- Millikan Subbasin Drainage Analysis, August 2000, David Evans and Associates
- Beaverton Creek Watershed Management Plan, June 1999, Brown & Caldwell (CWS with City of Beaverton)
- Analysis of the Central Interceptor Drainage System, June 1999, Economic and Engineering Services
- Murray Scholls Town Center Master Plan, April 1998, Zimmer Gunsul Frasca Partnership
- Westside Interceptor Storm Drainage Project, December 1997, KCM
- Fanno Creek Watershed Management Plan, June 1997, Kurahashi & Associates (CWS with City of Beaverton)
- Carrying Capacity Analysis and Capital Improvement Plan for the Beaverton

Regional Center and Tek Station Area, December 1996, KCM

- Subbasin Strategies Plan for Rock, Bronson and Willow Creeks, March 1996 (CWS with City of Beaverton)
- The most recent version of The City of Beaverton, Drainage Master Plan

STORM WATER DESIGN STANDARDS

- City of Beaverton – Engineering Design Manual and Standard Drawings. CWS standards entitled “*Design and Construction Standards for Sanitary Sewer and Surface Water Management*” are incorporated by reference from the Beaverton Design Standards.

5.4.1 Goal: Ensure long-term provision of adequate storm water management within existing City limits and areas to be annexed in the future.

POLICIES:

- a) The City shall continue to participate in the CWS’s Surface Water Management (SWM) program for the urban portion of the Tualatin River watershed. The City shall retain responsibility for planning, construction and maintenance of portions of the local storm water facilities within its incorporated limits.

Action 1: *To facilitate and encourage low impact development techniques, consider a reduction in SWM fees and Systems Development Charges (SDC) in proportion to the effective impervious area on site.*

- b) On-site detention will be used as a storm water management tool to mitigate the impacts of increased storm water run-off associated with new land development.

Action 1: *Develop programs and adopt and apply regulations allowing and encouraging habitat friendly development practices and low-impact development techniques to reduce the impacts of storm water run-off.*

Action 2: *If a SWM fee or SDC reduction program is implemented, include a biannual or annual monitoring program to allow for follow-up maintenance. If the area is not maintained then the property owner must pay the SWM and SDC fees and build a new structure to accommodate the water quality and quantity issues on site.*

- c) All new land development will be connected to a storm water drainage system. Each new development will be responsible for the construction or assurance of construction of their portion of the major storm water run-off facilities that are identified by the SWM program as being necessary to serve the new land development.

5.8 PARKS AND RECREATION

Parks and recreation facilities are basic and essential for the health and welfare of the community. The City coordinates the land use aspects of locating these facilities but does not predetermine sites. Location and improvement decisions for these types of facilities are the responsibility of the Tualatin Hills Park and Recreation District (THPRD).

As Beaverton and the Metro area become more densely developed, the number, location, size and quality of parks and recreation facilities have become increasingly more important. The demand for these facilities has been brought about in part by a higher standard of living; more leisure time resulting from such things as shorter work weeks, earlier retirement, and increasing life span; higher densities of development and a continuing emphasis on health and exercise. The by-products of urbanization in terms of congestion, air pollution and noise have also created a greater awareness of the need for open space in the urban environment. An adequate park and recreation system contributes to the physical and mental health of the community and can be a source of community pride.

As features in the urban landscape, parks improve the character of neighborhoods and tend to stabilize property values. Also, many businesses and industries seek locations with a high level of environmental quality as a means of increasing their ability to attract and retain a stable and productive work force. With improved transportation systems giving greater flexibility for business and industrial site selection, a well-developed park and recreation system can be an important factor in attracting such developments to the community.

THPRD is independent from the City with its own elected five-member Board of Directors and taxing authority. THPRD was established in 1955. THPRD's boundaries include most of Beaverton's assumed Urban Services Area. THPRD, for the most part, has developed its own acquisition and development plan pursuant to the adopted Tualatin Hills Park & Recreation District 20-Year Comprehensive and Trails Master Plans, which are adopted here by reference. In addition to donations and outright purchases, the THPRD works with the City and Washington County through the land development process to obtain sites by dedication.

The THPRD's plan recognizes different types of park and recreation facilities including regional, neighborhood, community and specialty parks, school parks, recreational/aquatic center, multi-use trail system plan, off-street trail corridors and

natural areas along streams. Frequently, habitat benefit areas occur adjacent to or coincide with natural areas along streams. These areas would be ideal extensions of the overall natural resource system. These descriptive park designations relate to the function or character of the parks shown on THPRD's 20-Year Comprehensive Park & Recreation and Trails Master Plans. As the area grows, opportunities will occur in addition to those shown on the plan. Each should be evaluated in terms of conformance with this plan's goals and policies and those of the THPRD 20-Year Comprehensive Park & Recreation and Trails Master Plans.

The Portland General Electric (PGE)/Bonneville Power Administration (BPA) transmission lines provide opportunities for open space and trail corridors in the community. These rights-of-way will not be converted to intensive urban land uses in the foreseeable future.

5.8.1 Goal: Cooperate with THPRD in implementation of its 20-Year Comprehensive Master Plan and Trails Master Plan in order to ensure adequate parks and recreation facilities and programs for current and future City residents.

Policies:

- a) The City shall support and encourage THPRD efforts to provide parks and recreation facilities that will accommodate growth while recognizing the limited supply of buildable land in the city for such facilities.
- b) The City shall encourage THPRD to provide parks and recreation facilities throughout the City in locations that are easily accessible to those they are intended to serve.
- c) The City shall support and encourage acquisition of park and recreation sites in advance of need so that the most appropriate sites are available for these vital public facilities.

Action 1: The City shall work with THPRD to further explore opportunities for mixing public park and recreation activities with revenue-generating public/private partnerships such as restaurants, recreation and aquatic centers, sports complexes, or other concession activities, in order to help finance recreation programming, park acquisition, and maintenance.

- d) The City shall notify THPRD of development proposals that may potentially impact a present or future park site to allow the district the opportunity to comment, purchase or request dedications.
- e) A number of financial incentives exist to encourage private property owners to donate, dedicate, or provide easements for resource preservation, park, trail or open

space use. The City shall work cooperatively with property owners and THPRD to maximize the use of these tools for the benefit of the community.

***Action 1:** The City shall develop a program to encourage preservation and restoration of habitat benefit areas in cooperation with THPRD.*

- f) To offset increased densities and to meet the needs of the population, the City and THPRD should work together to provide urban scale public spaces in regional centers, town centers, station communities and main street areas within the city.
- g) The planning, acquisition and development of multi-use paths should be consistent with this Plan's Transportation Element and THPRD's Trail Master Plan.
- h) The City shall encourage park acquisition and appropriate development in areas designated as Significant Natural Resources, as defined by Volume III of this Comprehensive Plan.

CHAPTER SIX:TRANSPORTATION ELEMENT

- 6.2.1. **Goal:** Transportation facilities designed and constructed in a manner to enhance Beaverton's livability and meet federal, state, regional, and local requirements.

Policies:

- a) Maintain the livability of Beaverton through proper location and design of transportation facilities.

Actions:

- *Design streets and highways to respect the characteristics of the surrounding land uses, natural features and natural hazards, and community amenities.*
 - *Design streets consistent with habitat-friendly development practices and low-impact development techniques and water quality and quantity street design principles, where technically feasible and appropriate.*
 - *Recognizing that the magnitude and scale of capital facilities also affect aesthetics and environmental quality, the City will continue to require design plans and impact analyses as specified in the Development Code.*
 - *Preserve right-of-way for improvements that are slightly beyond or within a specified time period that is beyond the planning forecast year identified in the Transportation System Plan.*
- b) Consider noise attenuation in the design and redesign of arterial streets immediately adjacent to residential development.
- c) Locate and design recreational multi-use paths to balance the needs of human use and enjoyment with resource preservation in areas identified on the Natural Resource Inventory Plan Map for their Significant Natural Resource values.

Action:

- *Proposals for shared-use paths through significant natural resource areas shall assess compatibility of the path with the resource. The assessment shall include the impacts of lighting, appropriate restrictions on uses of the path, and options available to mitigate the impacts of the path. (Ordinance 4301).*

- a) Limit the provision of parking to meet regional and State standards.

Actions: *Work to reduce parking per capita in accordance with Metro and State requirements, while minimizing impacts to neighborhoods. Work to reduce parking in habitat benefit areas, where parking can be provided in other locations including off-site, on the street, through shared uses, or in parking structures. Continue to implement the motor vehicle and bicycle parking ratios in new development. Develop and implement a Regional Center parking plan and a residential parking permit program as demand increases. Continue to implement shared parking and timed parking in new development and through existing programs. Work toward implementing other parking-based transportation demand management strategies, such as metered and structured parking, to help achieve Metro's 2040 Non-Single Occupant Vehicle mode split targets.*

- 6.2.7. **Goal:** Implement the transportation plan by working cooperatively with federal, State, regional, and local governments, the private sector, and residents. Create a stable, flexible financial system.

Policies:

- a) Coordinate transportation projects, policy issues, and development actions with all affected governmental units in the area. Key agencies for coordination include Washington County, Oregon Department of Transportation, TriMet, Metro, Tualatin Hills Park and Recreation, Clean Water Services, Tualatin Valley Fire and Rescue, and the adjacent cities of Tigard, Hillsboro, and Portland.
- b) Participate in implementation of regional transportation, growth management, environmental protection and air quality improvement policies. Work with agencies to assure adequate funding of transportation facilities to support these policies.
- c) Monitor and update the *Transportation Element* of the *Comprehensive Plan* so that issues and opportunities are addressed in a timely manner. Maintain a current capital improvement program that establishes the City's construction and improvement priorities, and allocates the appropriate level of funding.

Action: *The City commits to working with Metro and the Department of Land Conservation and Development in the City's next Transportation Plan update to address local issues related to non single-occupant-vehicle strategies.*

- d) Use the System Development Charge, Traffic Impact Fees, and development exactions as elements of an overall program to pay for adding capacity to the collector and arterial street system and for making safety improvements related to development impacts.

Action: Base the roadway system taxes and fees on the total expected cost of making extra capacity and safety improvements over a twenty-year period, allocated back to development on a pro rata formula taking into account the relative expected future traffic impact of the development in question.

- e) Establish rights-of-way through development review and, where appropriate, officially secure them by dedication or reservation of property.
- f) Develop a long-range financial strategy to make needed improvements to the transportation system and to support operational and maintenance requirements by working in partnership with Metro, Oregon Department of Transportation, and other jurisdictions and agencies.

Actions: The financial strategy should consider the appropriate shares of motor vehicle fees, impact fees, property tax levies, and development contributions to balance needs, costs, and revenue. View the process of improving the transportation system as that of a partnership between the public (through fees and taxes) and private sectors (through exactions and conditions of development approval), each of which has appropriate roles in the financing of these improvements to meet present and projected needs.

- g) Provide adequate funding for maintenance of the capital investment in transportation facilities.

Actions: Develop a long-term financing program that provides a stable source of funds to ensure cost-effective maintenance of transportation facilities and efficient effective use of public funds. Apply low impact development techniques on a city-wide basis where projects can accommodate the techniques. Fund the increased cost of the water quality and quantity additions to the streets through the surface water management program fees and systems development charges and other funding sources, as appropriate.

CHAPTER SEVEN: NATURAL, CULTURAL, HISTORIC, SCENIC, ENERGY, AND GROUNDWATER RESOURCES ELEMENT

7.1 OVERVIEW

This Plan element addresses natural, cultural, historic, scenic, energy, and groundwater resources within the context of Statewide Planning Goal 5. Statewide Planning Goal 5, Open Spaces, Scenic Resources and Historic Area, and Natural Resources, provides a mechanism for local governments to plan for resources. Procedures to comply with this goal are specified in Oregon Revised Statutes (ORS 660-23-000 through 660-23-250.) The procedures include a three-part process:

- 1) Inventory the resource,
- 2) Analyze the economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit or prohibit a conflicting use, and
- 3) Adopt a program to implement the decisions made through the ESEE analysis.

An alternative process is also provided for some resources: the Safe Harbor alternative. In this alternative, local governments are given the option to adopt inventories based on information gathered by other agencies, or to adopt standardized programs to implement protection of the resource, thereby eliminating the need to complete the ESEE analysis.

Volume III of the Comprehensive Plan, Statewide Planning Goal 5 Resource Inventory Documents, provides the information necessary to satisfy the inventory requirements of this goal. This information includes quantity, quality and location data on specific resources. Additionally, the inventoried resources are mapped or listed, and a determination of significance of the individual resource sites is provided in map or list form.

The text that follows addresses the third requirement in the Goal 5 process. Where possible, the program decision has been to follow the Safe Harbor regulations of the goal; therefore, an ESEE analysis is not necessary. Where necessary, the ESEE analysis is included in Volume III.

The resource protection goals, policies and actions that follow in this section are divided into Statewide Planning Goal 5 resource categories, to match each City inventory. Each category provides the foundation for the regulations and programs designed to protect, enhance or restore these resources, and to further demonstrate compliance with Statewide Planning Goal 5.

Metro, the regional government encompassing Washington, Clackamas, and Multnomah counties, identified regionally significant wildlife habitat and riparian corridors. These

areas were divided into categories: wildlife habitat, riparian corridors, and upland wildlife habitat and subdivided by classes: I, II and III or Class A, B and C. Upon completion of the inventory, the local governments within the Tualatin Basin combined together to form the Tualatin Basin Natural Resource Coordinating Committee, also known as the Tualatin Basin Partners. This group, headed by Washington County, conducted an ESEE analysis and developed a program to protect, conserve and restore Classes I and II riparian corridors/wildlife habitat and Class A upland wildlife habitat (termed Habitat Benefit Areas) as a voluntary program. Each local government, through the Tualatin Basin Partnership, agreed to “allow and encourage” habitat friendly development practices to comply with the intergovernmental agreement that the partners have with Metro. Additionally, to minimize storm water impacts on the Habitat Benefit Areas low impact development techniques are proposed throughout the city. The program is implemented through the Beaverton Development Code, Engineering Design Manual and Municipal Code.

The protection of natural resources is necessary to preserve a healthy, sustainable environment in an urban setting. Protection of these resources today will ensure that as the community grows in density and expands its boundaries the natural landscape will be preserved for the health, safety and welfare of its citizens. Natural resources also provide aesthetic beauty. Their protection benefits property values and increases the livability of the City.

Beaverton is fortunate to have natural and historic resources that significantly add to the quality of life. These include streams, adjacent riparian areas, wetlands, large wooded tracts, open space, and historic sites and buildings. Under state planning goals, the citizens of Beaverton have the opportunity and obligation to protect these resources. While it is unreasonable to expect all of Beaverton's resource areas to remain unchanged, we must recognize that the presence of these areas contributes to our overall quality of life. The retention of these resources maintains visual and scenic diversity, provides areas for education and passive or active recreation, and can provide site development amenities for residents and employees alike. Thus, a balance between full protection of all inventoried resources and full development of the inventoried resources is provided in the following goals, policies and actions.

7.1.1 Goal: Balance development rights with natural resource protection.

Policies:

- a) Coordinate resource protection programs with affected local, state, and federal regulatory agencies, and notify them of development proposals within natural resource areas.

Action 1: Adopt land use processes to incorporate notification to appropriate agencies as part of the development review process.

Action 2: Continue membership and activity as a partner of the Tualatin Basin Natural Resources Coordinating Committee.

Action 3: Encourage the use of the habitat friendly development practices and low impact development techniques through the Pre-Application Conference.

Action 4: Proactively lead the way with development of city buildings by using habitat friendly development practices and low impact development techniques.

Action 5: Develop a comprehensive habitat benefit area plan for the Beaverton Downtown Regional Center to integrate Beaverton Creek into the Regional Center as an amenity.

- b) Where adverse impacts to Significant Natural Resources cannot be practicably avoided, require mitigation of the same resource type commensurate with the impact, at a location as close as possible to the impacted resource site.
- c) Allow for relaxation of development standards to protect significant natural and historic resources. Such standards may include but are not limited to minimum setbacks, maximum building height, minimum street width, location of bicycle, pedestrian and multi-use paths, etc.

Action 1: Adopt and apply land use regulations that allow and encourage habitat friendly development practices and low impact development techniques within habitat benefit areas, and where appropriate, throughout the city.

Action 2: Adopt and apply a system to allow flexibility in applying the site development standards when development employs low impact development techniques and habitat friendly development practices.

Action 3: Adopt and apply an incentive program to encourage the use of the low impact development techniques and habitat friendly development practices.

- d) City policies or regulations shall not interfere with actions necessary for nuisance abatement or protecting the safety, health and welfare of Beaverton's citizens.
- e) Upon annexation of unincorporated properties with County Goal 5 natural resource designations, the City shall rely on the Urban Planning Area Agreement with Washington County to determine the appropriate City designation.

Action 1: The City shall work with Washington County to periodically update the UPAA to ensure compatibility in Goal 5 resource inventories, significance determination, and program decisions.

7.3 NATURAL RESOURCES

Natural Resources are classified and addressed in this section by Statewide Planning Goal 5 categories. Associated with these categories are detailed background data including

inventory and assessment information that provided the findings to determine the significance of resources. Adopted inventories of significant natural resources are included in the maps and listings of Significant Natural Resources located in Volume III of the Comprehensive Plan. The inventory lists and maps were adopted over time, based on state regulations.

Statewide Planning Goal 5 continues to be revised and updated. Each periodic review updates the City's inventory, and at the same time applies the most current requirements to ensure continued protection of significant natural resources.

In 1984, an inventory of Beaverton's natural resources was done to determine their quality and quantity. The City adopted a map layer entitled: Significant and Important Natural Resources and Other Important Natural Resources. These areas were then evaluated as to the economic, social, and environmental consequences of protecting the natural resource or allowing conflicting uses. Areas shown on the map as Significant Natural Resources are generally wetlands or riparian-stream corridors that were considered important principally for their wildlife habitat values. Areas shown on the map as Important Natural Resources contained major stands of trees, drainage swales, and other natural vegetation that were determined to be primarily important for their aesthetic value, although many also provide wildlife habitat of some, although relatively less, importance.

The map at that time delineated, as clearly as possible, the appropriate boundaries of the Significant and Important Natural Resources. However, it is also necessary to rely on inventory, field investigation, and other factors conducted in conjunction with the review of a proposed site development to define more precise boundaries, such as the exact location of a riparian corridor boundary on a specific site.

In 1991 the City Board of Design Review adopted an additional significant tree inventory. Although this inventory was not conducted pursuant to Statewide Planning Goal 5, and was not adopted by the City Council, it did serve to further define trees and stands of trees of importance to the City

In 2000, a Local Wetland Inventory (LWI) was completed. The LWI is one of the City's Goal 5 resource inventories comprising Volume III of the Comprehensive Plan. The City employed the Goal 5 regulations by conducting the inventory reconnaissance using the Oregon Freshwater Assessment Methodology (OFWAM) to satisfy the quality and quantity requirements of the regulations. Significance was determined based on applying the LWI criteria, using the OFWAM findings. The LWI includes wetlands meeting state criteria for significance. A list of locally significant wetlands is found in Comprehensive Plan Volume III, Local Wetland Inventory Text, Appendix A Table 5.

Also in 2000, an Urban Riparian Assessment was completed following the procedures found within the Urban Riparian Inventory and Assessment Guide, developed by the Division of State Lands. This assessment was adopted, and included in Comprehensive Plan Volume III, Appendix C of the Local Wetland Inventory. It is intended to be used

as a tool by planners to indicate that additional information on the location of the riparian area is required prior to development approval.

In 2000 the City also determined that certain streams are fish-bearing following the Goal 5 Safe Harbor requirements for Riparian Corridor inventories and determinations of significance. The significant fish bearing streams are identified on page 3 of Planning Commission Order No. 1318, enclosed in the opening pages of the Local Wetland Inventory.

Adequate riparian corridors are of particular importance for their positive effect on the adjacent water resource. They act as natural filters for pollutants, provide flood control benefits, and reduce erosion. Vegetation in riparian corridors provides shade and cover for both fish and other aquatic and upland wildlife species. The riparian corridors within the City are typically located within residential, commercial, and campus industrial areas. Generally the vegetation in these riparian areas has been removed, or altered substantially. As the City continues to grow and increases density, the remaining unaltered riparian corridors will be subject to development pressures. Removal of vegetation and the construction of structures within the riparian areas are the activities most likely to conflict with riparian functions and values. These conflicting uses can be managed through regulatory provisions that limit encroachment. Where encroachment is permitted, prescribed levels of mitigation and restoration can be required.

Although areas of significant wildlife habitat, as defined by the State Goal 5 Administrative Rule, have not been identified in the city, measures to protect significant riparian areas and wetlands also serve to protect fish and wildlife. Areas of fish and wildlife habitat are important to our community because they add to our overall quality of life by permitting observation and appreciation of our stewardship responsibilities in close proximity to our homes and workplaces. While these resources exist elsewhere in Oregon, they are important remnants of the natural environment close to our everyday activities.

In 2002, Metro released a Preliminary Draft Riparian Corridor and Wildlife Habitat Inventory for public review. In September 2003, Metro released a Discussion Draft of the Economic, Social, Environmental and Energy Analysis (ESEE). In 2004, Metro released the Phase II ESEE: Draft Analysis of Program Options. In August 2004, the Tualatin Basin Partners held a public hearing to review the draft program and the mapping. In March 2005, the Tualatin Basin Partners endorsed the staff report, exhibits, program report, and mapping. The package was submitted to Metro for inclusion in their Council action on the overall Metro Nature in the Neighborhoods Program. Metro Council approved the program in September 2005. The Partners then drafted two issue papers outlining the habitat friendly development practices and how they might apply in the Tualatin Basin and more specifically, within habitat benefit areas.

7.3.1 Significant Natural Resources

<p><i>7.3.1.1 Goal: Conserve, protect, enhance or restore the functions and values of inventoried Significant Natural Resources.</i></p>

Policies:

- a) Inventoried natural resources shall be conserved, protected, enhanced or restored:
- to retain the visual and scenic diversity of our community;
 - for their educational and recreational values;
 - to provide habitats for fish and wildlife in our urban area.
- b) Conserve, protect and enhance natural resource sites and values through a combination of programs that involve development regulations, purchase of land and conservation easements, educational efforts, and mitigation of impacts on resource sites.

Action 1: Establish acquisition programs for Significant Goal 5 Resources; prepare and maintain a long-range list of priority resource locations for public acquisition.

Action 2: Facilitate and encourage habitat friendly development practices and low impact development through flexibility in site development standards and reductions in surface water management fees and systems development charges.

- c) Inventoried natural resources shall be incorporated into the landscape design of development projects as part of a site development plan, recognizing them as amenities for residents and employees alike.
- d) The City shall rely on its site development permitting process as the mechanism to balance the needs of development with natural resource protection.

Action 1: For properties located within significant natural resource areas, the City shall consider relaxation of its development standards where necessary to accomplish protection of riparian and wetland areas. Such standards include, but are not limited to, setbacks, building height, street width, location of bike paths, etc. Where the combination of riparian, wetlands, and other requirements would result in an unbuildable lot, such a situation may be relevant to a decision that may grant a hardship variance.

Action 2: City Staff will provide pre-application conferences to developers of property to provide available information and to discuss alternative methods of development acceptable to meet the adopted policies and ordinance standards. City staff will provide information on low impact development techniques and habitat friendly development practices to applicants and encourage and facilitate applicants to use the practices and techniques.

Action 3: Adopt and apply land use regulations that require integration of natural features with the overall design of developments. Natural features include, but are not limited to, wetlands and water areas, intermittent and perennial streams, riparian corridors, urban forests and significant individual or community trees, slopes, geologic hazards, flooding, and erosion prone soils.

Action 4: *Adopt and apply land use regulations that will minimize impacts from adjacent uses. Development Code design criteria shall be adopted that address the following considerations:*

- *Land uses immediately adjacent to protected resource areas should be designed to physically separate human activity from the resource activity. Preferred development abutting the resource should be 1) buildings with entrances oriented away from the resource area, and then 2) roadways with limited or no street parking with 3) parking lots as the lowest preference.*
- *Garbage facilities and materials storage areas should be located away from habitat areas.*
- *Habitat areas should be preserved as a few large connected areas, rather than many disconnected small areas and should be designed to minimize the amount of habitat edge exposed to development areas.*
- *Existing native vegetation should be retained to provide wildlife habitat. Snags and dying trees should be left in protected wildlife areas for wildlife use.*
- *To minimize disturbances to wildlife, lights for buildings and parking areas shall be screened, and the light shall be directed away from the protected habitat areas,*
- *Walkways should not bisect wildlife areas. If walkways do encroach upon wildlife areas, security lighting should be designed to shine primarily on the path and avoid shining directly into habitat areas.*

Regulations to address the above considerations shall not compromise public safety.

Action 5: *Adopt and apply regulations for resource areas, mitigation sites, areas adjacent to natural areas, wetlands, and tree groves that include but are not limited to the following requirements:*

- *Require use of native vegetation in mitigation areas and riparian buffers. Seed- and fruit-producing native plants with aesthetic value should be incorporated into the landscaping at locations adjacent to wildlife habitat areas.*
 - *Allow for buffer averaging in order to create opportunities for habitat protection and enhancement while accommodating urban forms of development.*
- e) Development within Significant Natural Resource areas shall be consistent with the relevant regulations or guidelines of the National Marine Fisheries Service, U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, U.S. Army Corps of Engineers, Oregon Division of State Lands, Clean Water Services, and the Oregon Department of Environmental Quality.

Action 1: *During pre-application conferences for developers, City staff will attempt to identify any Federal, State, or local requirements and regulations affecting sites in Significant Natural Resource areas.*

***Action 2:** The City will continue to monitor and review policies and regulations as necessary, to ensure consistency with Federal, State, and service providers' guidelines and regulations.*

- f) Specific uses of or development activities in Significant Natural Resources areas shall be evaluated carefully and those uses or activities that are complementary and compatible with resource protection shall be permitted. This is not intended to prohibit a land use permitted by the underlying zoning district but only to regulate the design of development such as building or parking location or type of landscaping.
- g) Limited alteration or improvement of Significant Natural Resource areas may be permitted so long as potential losses are mitigated and "best management practices" are employed.
- h) Roads and utilities, which must be located within, or traverse through, a Significant Natural Resource Area, shall be carefully planned and aligned so as to minimize loss and disruption. A rehabilitation or restoration plan shall be a necessary component. The City should allow variations from standard street sections in these areas.

CHAPTER EIGHT: ENVIRONMENTAL QUALITY AND SAFETY ELEMENT

8.2 *Water Quality*

Water quality resource protection is necessary for its life sustaining benefits. The City and the Clean Water Services (CWS) share responsibility for meeting the standards set by the Federal Clean Water Act. These standards, defined by the Total Maximum Daily Loads (TMDLs) of waste water that can be discharged into streams, are set by the Oregon Department of Environmental Quality (DEQ). The primary source of water quality impacts in the City is from runoff flowing into streams and wetlands from streets, parking lots, building roofs and landscaped areas. The flashiness of storm flows in urban areas causes degradation of the vegetative corridors along streams that, in turn, increases the erosion of riparian banks and water turbidity. The scouring of the riparian banks and lack of established native vegetative cover along streams leads to increased water temperatures that also degrade water quality and aquatic habitat.

The quality of water resources can be protected, enhanced or restored through the application of development standards that require planting and maintenance of natural vegetation within riparian areas. This can be achieved through the development process or by voluntary actions on the part of private property owners and volunteer organizations. Voluntary and incentive based reductions to impervious surfaces, along with the use of habitat friendly development practices and low impact development techniques can also reduce impacts to water resources. Overall, sustainable stormwater management balances the hydrologic regime found before development. Pre-development or natural hydrologic function is the relationship among the overall and subsurface flow, infiltration, storage, and evapotranspiration characteristics of the landscape. Sustainable stormwater management avoids and minimizes impacts to natural resources by protecting native vegetation and natural drainage sources. The natural stormwater system mimics natural water flow by minimizing land disturbance and incorporating natural landscape features in to the development. Implementation of development requirements that follow the Clean Water Services Design and Construction Standards manual, and erosion control practices, can help to reduce and filter storm drainage flow, particularly during heavy rainfall.

<p>8.2.1. <i>Goal: Maintain and improve water quality, and protect the beneficial uses, functions and values of water resources.</i></p>

POLICIES:

- a) All water resource areas within the City shall be enhanced, restored or protected to the extent practicable.

Action 1: *Develop incentives programs for property owners that will encourage the enhancement, restoration or protection of vegetative corridors. One such program might include working with CWS to establish an information outreach effort to encourage the creation of separate tracts for water resource areas, or dedication of water resource areas to a public or non-profit agency, thereby limiting development in the identified resource areas, and benefiting property owners by reduced property taxes for the portion set-aside as non-developable.*

Action 2: *Review and refine monitoring and enforcement programs regarding erosion control practices in conjunction with development.*

Action 3: *Cooperatively work with appropriate City departments and service providers, through a technical advisory committee, to review their use of Best Management Practices (BMPs) and other programs approved by the National Marine Fisheries Service in public works projects, and routine maintenance activities that potentially impact stormwater runoff or have a direct effect on streams and wetlands. Adopt and apply appropriate regulations formulated through the cooperative process.*

Action 4: *Adopt and apply appropriate regulations allowing and encouraging habitat friendly and low impact development practices.*

- b) The City shall limit development in vegetative corridors along streams through application of the CWS Design and Construction Standards so as to substantially comply with requirements of the Metro Functional Plan Title 3.

Action 1: *Adopt and apply appropriate land use regulations aimed at restoring, enhancing or protecting water quality sensitive areas.*

Action 2: *Adopt and apply appropriate land use regulations that allow and encourage multi-use functions of landscaping so that landscaping can be used for stormwater retention, detention and infiltration.*

Action 3: *Adopt and apply appropriate land use regulations that allow and encourage use of native vegetation and vegetation that mimics the natural environment in landscaping in development.*

- c) The City shall support the development of education programs aimed at helping staff, land use related boards and commissions, members of the development community, the Committee for Citizen Involvement and citizens understand the importance of good stewardship and the use of non-regulatory tools that will provide additional water quality resource protection.

Action 1: *Seek funding opportunities such as grants that would assist development and implementation of Citywide habitat friendly development practices and low impact development education, information and project*

management programs that might include a City environmental coordinator position.

- d) Partner with other local jurisdictions and service providers to avoid duplication of efforts and resources.
- e) Protect investments in the City by managing stormwater runoff.

Action 1: *Adopt and apply land use regulations that control the rate of runoff to reduce sudden changes in water flow, abnormally high flows, and flooding due to development.*

Action 2: *Adopt and apply land use regulations to provide increased surface water runoff detention and avoid structural damage to improvements. First priority, site improvements are off-channel mitigation and wetlands. Second priority, site improvements are in-channel. Exhaust on-site mitigation opportunities before seeking off-site mitigation.*

Action 3: *Adopt and apply land use regulations to provide undisturbed vegetative buffers between the stream or significant wetland and any hard surface improvement or building. The defined buffer width may be treated as an average dimension to allow flexibility in design and increase opportunities to enhance wildlife habitat. Where undisturbed, vegetative buffers are reduced below the defined width by way of averaging the required buffer width, the adjacent urban development should include increased landscaping, and street tree plantings to maximize tree canopy coverage and reduce the urban heating effect. Increased landscaping will help reduce stream temperatures through the urban area.*

Action 4: *Adopt and apply land use regulations requiring surface storm drainage from walkways, streets, parking areas, and roofs to be designed to flow into detention areas and landscape areas rather than into stream channels and the riparian corridor. Monthly surface water management fees may be discounted through designs that minimize impacts on the storm water system.*

Action 5: *Adopt and apply land use regulations requiring integration of storm water detention and treatment facilities into the design of a development appearing, if feasible, as a component of the landscape rather than as a utility element.*

- f. Encourage development in urban environments in ways that promote healthy watersheds and natural resources.

Action 1: *Adopt and apply regulations that allow and encourage habitat friendly development practices and low impact development techniques and preservation of natural resources. Examples include allowing greater deviation from site development standards when preserving habitat or using habitat friendly or low*

impact development practice; allowing use of pervious pavements and green street cross sections, where appropriate; rain gardens and ecoroofs.

Action 2: *Adopt and apply regulations that encourage use of natural stormwater systems that mimic natural hydrologic function by minimizing land disturbances and incorporating natural landscape features. Examples include raingardens, ecoroofs, vegetated swales, pervious pavers, and retention of trees and native vegetation..*

8.7 Flood Hazards

The City supports the Federal Emergency Management Agency (FEMA) guidelines for floodplain development. Floodplain protection is essential for water quality functions and values. Natural floodplains serve as filters that absorb excess stormwater runoff and pollutants, aid in erosion control, and provide important shade and habitat protection. The City protects floodplains through a variety of methods. These include application of the FEMA Flood Insurance Rate Maps, Development Code requirements, engineering standards, CWS Design and Construction Standards, and building code requirements.

8.7.1 Goal: *Maintain the functions and values of floodplains, to allow for the storage and conveyance of stream flows and to minimize the loss of life and property.*

POLICIES:

- a) Utilize uniform or complementary interjurisdictional floodplain development and management programs to reduce flood hazards, protect natural resources, and permit reasonable development.

Action 1: *Adopt and apply appropriate land use regulations that allow and encourage low impact development techniques and habitat friendly development practices to mimic the natural system, thereby reducing or eliminating the need for piped systems.*

- b) Development shall be prohibited in the floodway, except as necessary for the placement of roadways, utilities, stormwater conveyance, bridges, culverts, and grading related to public utility projects as permitted by the appropriate implementing ordinances.
- c) Construction within the floodfringe shall be regulated through the City's implementing ordinances, such as the City's Engineering Design Manual and Standard Drawings.
- d) Uncontained areas of hazardous materials, as defined by the DEQ, shall be prohibited in the floodplain.

Action 1: *Develop a program to remove hazardous obstructions and debris from floodplains.*

Action 2: *Develop a flood damage reduction program to protect, to the extent practicable, existing development in the 100-year floodplain, following guidelines and regulations established by the Federal Emergency Management Agency (FEMA). Alternatively, explore programs to encourage removal of existing development from floodplains.*

GLOSSARY

Definitions to be added in alphabetical order:

Developed areas not providing vegetative cover – are areas that lack sufficient vegetative cover to meet the one-acre minimum mapping units of any other type of vegetative cover.

Forest Canopy: Areas that are part of a contiguous grove of trees of one acre or larger in area with approximately 60% or greater crown closure, irrespective of whether the grove is near a water feature.

Green Street: Stormwater and stream crossing solutions related to street design, including: pavement minimization, pervious paving materials, maximized street tree usage, multi-functional open drainage systems and modified drainage practices, minimizing the number of stream crossings and/or placing crossings perpendicular to the stream, where possible, allowing narrow street widths through stream corridors, and using habitat sensitive bridge and culvert designs. Metro produced a series of books on Green Streets that can be a valuable reference as a guidance document when implementing the concept of green streets.

Habitat Benefit Area (HBA): An area of land determined to provide a benefit to wildlife. The general location of habitat benefit areas are shown on Metro's Regionally Significant Fish and Wildlife Habitat Inventory map as Riparian Habitat Classes I, II and III and Upland Wildlife Habitat Class A. Habitat benefit areas also include a habitat buffer area. Habitat benefit areas are in addition to any areas required for natural resource protection by existing regulations.

Habitat Friendly Development Practices (HFDP): A broad range of development techniques and activities that reduce detrimental impacts on fish and wildlife habitat resulting from traditional development practices.

Low Impact Development (LID): A stormwater management and land development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic predevelopment hydrologic functions. LID tools are designed to reduce environmental impacts of development, such as increased storm water runoff due to impervious areas, poor water quality and inconsistent water quantity in streams and rivers. LID techniques control storm water runoff volume and reduce pollutant loadings to receiving waters. Not all sites are suitable for LID. Considerations such as soil permeability, depth of water table and slope must be considered, in addition to other factors. LID techniques may not completely replace the need for conventional stormwater controls.

Low structure vegetation or open soils – Areas that are part of a contiguous area one acre or larger or grass, meadow, crop-lands, or areas of open soils located within 300 feet of a surface stream.

Woody vegetation: areas that are part of a contiguous area one acre or larger of shrub or open or scattered forest canopy (less than 60% crown closure) located within 300 feet of a surface stream.

EXHIBIT B

Tualatin Basin Goal 5 Fish and Wildlife Habitat Program

Metro, the regional government encompassing Washington, Clackamas, and Multnomah counties, inventoried fish and wildlife habitat and identified regionally significant wildlife habitat and riparian corridors. The inventory, Regionally Significant Fish and Wildlife Habitat Inventory Map (Metro Ordinance 05-1077c Exhibit a), is divided into categories: wildlife habitat, riparian corridors, and upland wildlife habitat and subdivided by classes: I, II and III or Class A, B and C, hereby incorporated by reference.

Upon completion of the inventory, the local governments within the Tualatin Basin combined together to form the Tualatin Basin Natural Resource Coordinating Committee, also known as the Tualatin Basin Partners. This group, headed by Washington County, conducted an Environmental, Social, Economic, and Energy consequences analysis, hereby incorporated by reference. The Tualatin Basin Partners developed a voluntary program to protect, conserve and restore Classes I and II riparian corridors/wildlife habitat and Class A upland wildlife habitat (termed Habitat Benefit Areas). The City of Beaverton includes Classes I, II and III riparian corridors and Class A upland wildlife habitat as Habitat Benefit Areas on the map titled "Habitat Benefit Areas Map". Habitat Benefit Areas are intended to be the habitat beyond the areas that are managed or protected through other programs such as the City's Goal 5 program or the Clean Water Services Design and Construction Standards.

Each local government, through the Tualatin Basin Partnership, agreed to "allow and encourage" habitat friendly development practices to comply with the intergovernmental agreement that the partners have with Metro. Additionally, to minimize storm water impacts on the Habitat Benefit Areas, low impact development techniques are proposed throughout the city. The program is implemented through the Beaverton Development Code, Engineering Design Manual and Municipal Code.

Definition of habitat and delineation methodology is produced by Metro as the mapping is provided by Metro. The Metro definition of habitat and delineation methodology is cited below:

Verifying boundaries of inventoried riparian habitat. Locating habitat and determining its riparian habitat class is a four-step process:

- (1) Locate the Water Feature that is the basis for identifying riparian habitat.
 - (a) Locate the top of bank of all streams, rivers, and open water within 200 feet of the property.
 - (b) Locate all flood areas within 100 feet of the property.
 - (c) Locate all wetlands within 150 feet of the property based on the City of Beaverton Local Wetland Inventory map. Identified wetlands shall be further delineated consistent with methods currently accepted by the Oregon Division of State Lands and the U.S. Army Corps of Engineers.

- (2) Identify the vegetative cover status of all areas on the property that are within 200 feet of the top of bank of streams, rivers, and open water, are wetlands or are within 150 feet of wetlands, and are flood areas and within 100 feet of flood areas.
 - (a) Vegetative cover status shall be as identified on the Metro Vegetative Cover Map
 - (b) The vegetative cover status of a property may be adjusted only if (1) the property was developed prior to the time the regional program was approved, or (2) an error was made at the time the vegetative cover status was determined. To assert the latter type of error, applicants shall submit an analysis of the vegetative cover on their property using summer 2002 aerial photographs and the definitions of the different vegetative cover types provided in the Glossary of the Comprehensive Plan, Volume I.
- (3) Determine whether the degree that the land slopes upward from all streams, rivers, and open water within 200 feet of the property is greater than or less than 25% using the methodology as described in the Clean Water Services Design and Construction Standards; and
- (4) Identify the riparian habitat classes applicable to all areas on the property using Table 6, the data supplied in numbers 1, 2, and 3 above and the Glossary of the Comprehensive Plan , Volume I.

Table 6: Method for Locating Boundaries of Class I and II Riparian Areas.

Distance in feet from Water Feature	Development/Vegetation Status ¹			
	Developed areas not providing vegetative cover	Low structure vegetation or open soils	Woody vegetation (shrub and scattered forest canopy)	Forest Canopy (closed to open forest canopy)
Surface Streams				
0-50	Class II	Class I	Class I	Class I
50-100		Class II ²	Class I	Class I
100-150		Class II ² if slope>25%	Class II ² if slope>25%	Class II ²
150-200		Class II ² if slope>25%	Class II ² if slope>25%	Class II ² if slope>25%
Wetlands (Wetland feature itself is a Class I Riparian Area)				
0-100		Class II ²	Class I	Class I
100-150				Class II ²
Flood Areas (Undeveloped portion of flood area is a Class I Riparian Area)				
0-100			Class II ²	Class II ²

¹ The vegetative cover type assigned to any particular area was based on two factors: the type of vegetation observed in aerial photographs and the size of the overall contiguous area of vegetative cover to which a particular piece of vegetation belonged. As an example of how the categories were assigned, in order to qualify as "forest canopy" the forested area had to be part of a larger patch of forest of at least one acre in size.

² Areas that have been identified as habitats of concern, as designated on the Metro Habitats of Concern Map (on file in the Metro Council office), shall be treated as Class I riparian habitat areas in all cases, subject to the provision of additional information that establishes that they do not meet the criteria used to identify habitats of concern as described in Metro's Technical Report for Fish and Wildlife. Examples of habitats of concern include: Oregon white oak woodlands, bottomland hardwood forests, wetlands, native grasslands, riverine islands or deltas, and important wildlife migration corridors.

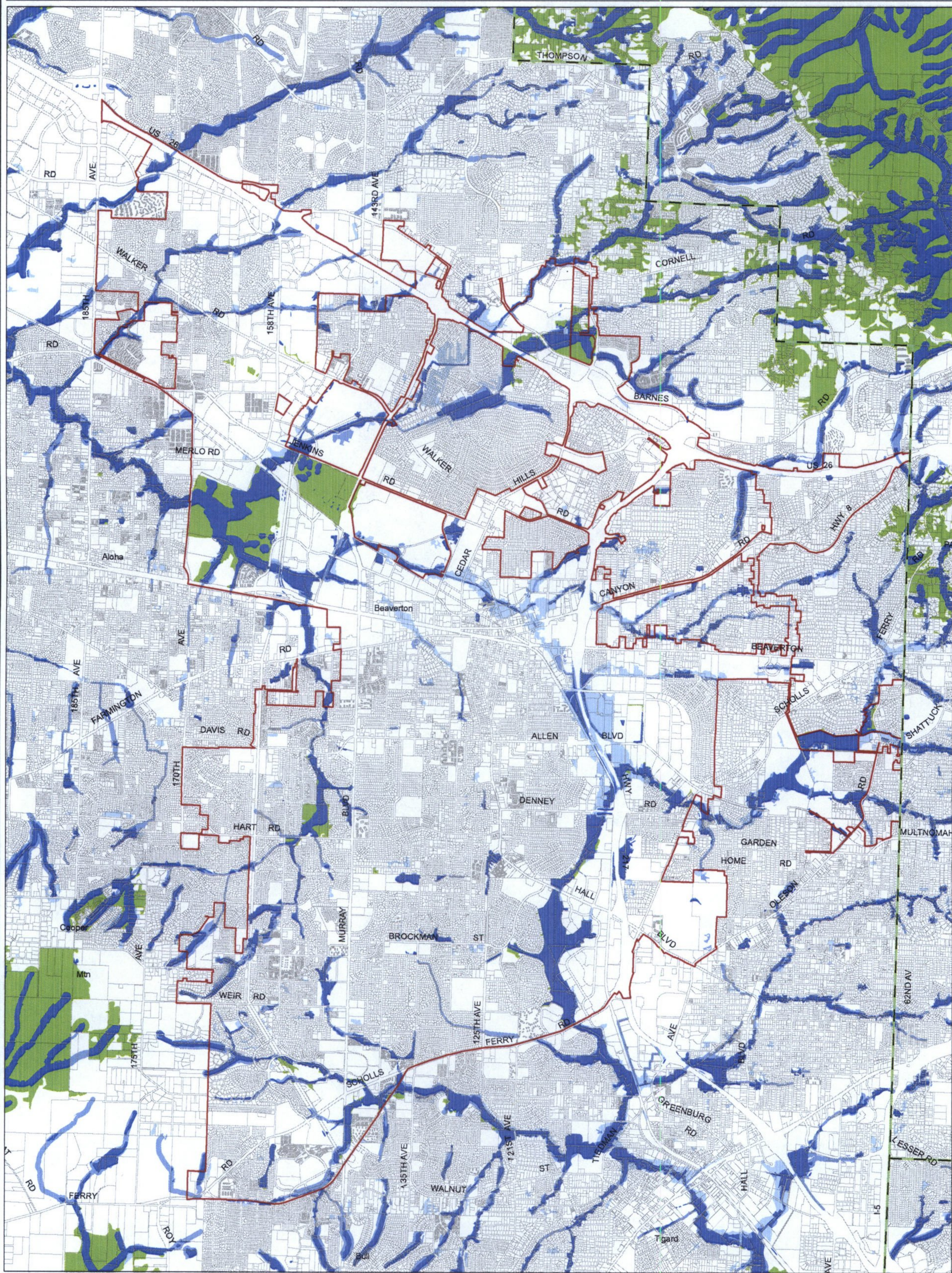
- (5) Identify developed floodplain, floodplain beyond Class I and II riparian areas, identify any forest patches on the aerial not included as Habitat Class A. These areas are Riparian Class III.

Verifying boundaries of inventoried upland habitat. Upland habitat was identified based on the existence of contiguous patches of forest canopy, with limited canopy openings. The "forest canopy" designation is made based on analysis of aerial photographs, as part of determining the vegetative cover status of land within the region. Upland habitat shall be as identified on the Habitat Benefit Areas map unless corrected as provided in this subsection.

1. Except as provided below, vegetative cover status shall be as identified on the Metro Vegetative Cover Map used to inventory habitat at the time the Habitat Benefit Areas map is adopted by this ordinance.
2. The only allowed corrections to the vegetative cover status of a property are as follows:
 - a. To correct errors made when the vegetative status of an area was determined based on analysis of the aerial photographs used to inventory the habitat at the time the area was brought within the urban growth boundary. For example, an area may have been identified as “forest canopy” when it can be shown that such area has less than 60% canopy crown closure, and therefore should not have been identified as “forest canopy.” The perimeter of an area delineated as “forest canopy” on the Metro Vegetative Cover Map may be adjusted to more precisely indicate the dripline of the trees within the canopied area provided that no areas providing greater than 60% canopy crown closure are de-classified from the “forest canopy” designation. To assert such errors, applicants shall submit an analysis of the vegetative cover on their property using the aerial photographs that were used to inventory the habitat at the time the area was brought within the urban growth boundary and the definitions of the different vegetative cover types provided in the Glossary of Volume I: The Comprehensive Plan; and
 - b. To remove tree orchards and Christmas tree farms from inventoried habitat; provided, however, that Christmas tree farms where the trees were planted prior to 1975 and have not been harvested for sale as Christmas trees shall not be removed from the habitat inventory.
3. If the vegetative cover status of any area identified as upland habitat is corrected change the status of an area originally identified as “forest canopy,” then such area shall not be considered upland habitat unless it remains part of a forest canopy opening less than one acre in area completely surrounding by an area of contiguous forest canopy.

EXHIBIT C

Volume III Habitat Benefit Areas Map



Legend

- Upland Wildlife Habitat Class A
- Riparian Wildlife Habitat Class I
- Riparian Wildlife Habitat Class II
- Riparian Wildlife Habitat Class III
- Beaverton City Limits
- County Line

